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10/763,521

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EXAMINER

MITCHELL, NATHAN A

ART UNIT

PAPER NUMBER

2617

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DELIVERY MODE

02/02/2010

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

| | | | |
|------------------------------|--------------------------------------|--|--|
| Office Action Summary | Application No. 10/763,521 | Applicant(s) AKAMA, KATSUAKI | |
| | Examiner NATHAN MITCHELL | Art Unit 2617 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 January 2010.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 and 12-16 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 7-10 and 13-16 is/are allowed.
- 6) ☒ Claim(s) 1-6 and 12 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after allowance or after an Office action under *Ex Parte Quayle*, 25 USPQ 74, 453 O.G. 213 (Comm'r Pat. 1935). Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, prosecution in this application has been reopened pursuant to 37 CFR 1.114. Applicant's submission filed on 1/05/2010 has been entered.

Information Disclosure Statement

2. The information disclosure statements (IDS) submitted on 1/05/2010 was filed after the mailing date of the Notice of Allowance. The submissions are in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statements are being considered by the examiner.

Allowable Subject Matter

3. Prosecution on the merits of this application is reopened on claims below and they are considered unpatentable for the reasons indicated below:
amendments to claims 1 and 12 in the response dated 7/01/2009 are written in such a way that they don't actually limit the structure of the apparatuses claimed.

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

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A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1, 3 and 5 are rejected under 35 U.S.C. 102(b) as being anticipated by "Mobile IP" to Perkins.

For **claim 1**, Perkins discloses a server (fig. 10 home agent) disposed in a packet network (see fig. 10) to repeat a packet between a first terminal (fig. 10 mobile client) and a second terminal (fig. 10 Internet host) comprising:

A session managing unit (inherently home agents store an home address with an associated COA address see fig. 6 of 6,957,262 for proof that this is standard procedure) storing a first address of the first terminal (page 3 "home address") representing a first connection status between the server and the terminal (active session) and a second address of the first terminal assigned to a second session representing a second connection status between the server and the first terminal (page 2 care-of address).

A receiving unit receiving a packet containing user data from the second terminal (see fig. 10 receiving unit would be inherent in home agent)

A switching unit (inherent in home agent) switching from the first session of having the first address as a destination to the second session having the second address as the destination and on the basis of the addresses stored in the session managing unit (see page 4 first half of first column; data is routed to home agent because the home address must be the destination address; data is then routed to the COA address as that would be the new destination address).

A transmitting unit transmitting the packet using the second session switched by the switching unit (inherent see fig. 1 or 10; data is routed/transmitted),

Wherein said session managing unit stores said first session and said second session before said switching (page 3 bullet 5; all packets sent to the home address are switched by the home agent to the mobile's current COA through the foreign agent. Thus the server does not lose its memory of the home address after tunneling a packet to the mobile once).

Regarding **claim 3**, the home address would be assigned by the home network which can be considered a mobile communication network and a COA is assigned by an IP network.

Regarding **claim 5**, the first session (defined by use of home address) can be considered a session in which the first terminal communication with the home network over a mobile communications network. Furthermore, the second session can be considered an "other session".

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

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1. Determining the scope and contents of the prior art.
 2. Ascertaining the differences between the prior art and the claims at issue.
 3. Resolving the level of ordinary skill in the pertinent art.
 4. Considering objective evidence present in the application indicating obviousness or nonobviousness.
5. Claim 2, 4 rejected under 35 U.S.C. 103(a) as being unpatentable over Perkins in view of U.S. Patent No. 6,987,771 B2 to Shimizu et al. and U.S. Patent No. 6,839,323 B1 to Foti

For **claim 2**, Perkins discloses a server (foreign agent) disposed in a packet network to repeat a packet between a first terminal (mobile terminal) and a second terminal (internet host), comprising:

A receiving unit (inherent to foreign agent) receiving a packet have the first address as a source address and containing user data from the first terminal in the first session (page 2 column 2 see paragraph starting “A mobile node has a home address...”)

A transmitting unit transmitting a packet in the receiving packet (see fig. 1).

For claim 2, Perkins does not disclose (is silent) a session managing unit in the context of a foreign agent.

However in analogous art, Shimizu et al. disclose a foreign agent having a session managing unit (fig. 4) that stores a first address representing a first session (fig. 4 HA address) and a second address representing a second session (fig. 4 COA addresss). It would have been obvious to one of ordinary skill in the art at the time of invention that a table such as the one in fig. 4 could be incorporated into the teachings

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of Perkins in order to have management capabilities. The motivation for the combination is the use of a known technique to improve a similar device in the same way.

For claim 2, Perkins also does not disclose the transmitting unit transmitting the packet using the server address of the source address. However this is a well known routing method.

In an analogous art, Foti discloses encapsulating a packet with the router address as the source address (column 5 15-25). It would have been obvious to one of ordinary skill in the art at the time of invention that this teaching could be combined into the invention as modified by having foreign agents use their address as the source address for outgoing packets. The motivation for the combination is the use of a known technique to improve a similar device in the same way.

Claim 4 is rejected for the same reasoning as claim 3.

6. Claims 6 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Perkins in view of U.S. Patent Application Publication No. 2002/0133598 A1 to Strahm et al.

For claim 6, Perkins does not disclose the home agent switching unit monitoring a quality of the radio signal transmitting from the first terminal and switching on the basis of predetermined detection.

However in an analogous art, Strahm et al. discloses a home agent monitoring connection and using the quality of the radio signal information as the basis of handoff decision (paragraph 28). It would have been obvious to one of ordinary skill in the art at the time of invention that the technique of Strahm et al. could be incorporated into the

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invention of Perkins (implemented as part of switching unit) by having the home agent monitor signal strength and other factors. The motivation for the combination is the use of a known technique to improve a similar device in the same way.

For **claim 12**, claim 1 and claim 6 can be considered to disclose all the subject matter of the claimed invention (measuring means would be inherent at some level in paragraph 28) with the exception of the transmitting unit transmitting a received packet and a measured receive quality to a server. Furthermore, Perkins discloses routing packets through a home agent (VIII B). Official notice is taken that it was well known at the time of invention to invention for handoff decisions at higher level nodes to be based on measurements from lower level nodes (mobile terminal for instance). Thus it would have been obvious to one of ordinary skill in the art at the time of invention to combine this teaching and send the signal strength information along with the packet to the server (home agent). The motivation for the combination is the use of a known technique to improve a similar device in the same way.

Allowable Subject Matter

4. Claims 7-10, 13-16 allowed.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to NATHAN MITCHELL whose telephone number is (571)270-3117. The examiner can normally be reached on M-F 8:30-5.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lester Kincaid can be reached on (571)272-7922. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



/Nathan Mitchell/
Examiner, Art Unit 2617
2/1/2010

/LESTER KINCAID/
Supervisory Patent Examiner, Art Unit 2617